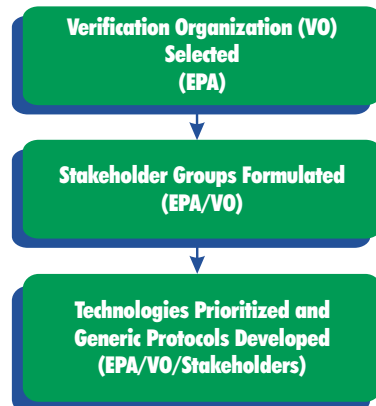
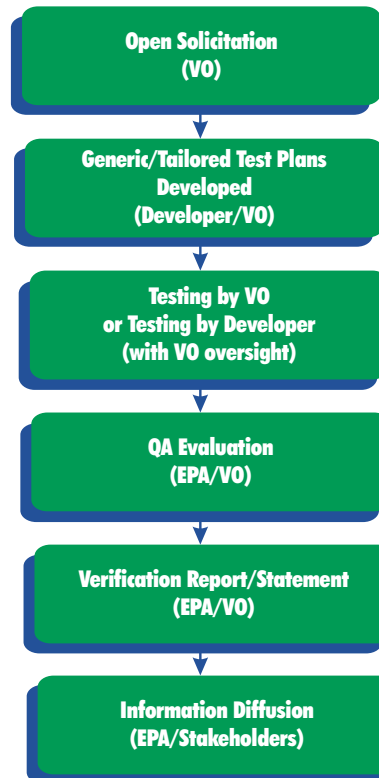


ETV Pilot Process

Organizational Phase



Operational Phase



Want to Know More About the ETV Program?

Up-to-date information on the ETV Program can be viewed on the ETV Web Site at <http://www.epa.gov/etv>. The Web Site contains a description of each pilot as well as its protocols and test plans, a list of stakeholders, a fact sheet and other publications, announcements and meeting summaries, ETV verification statements/reports, and links to the partner and other related Web sites. It also contains a "What's New" page that highlights recent progress and items just posted on the site; a "Publications and Documents" page, which contains general program documents, the ETV Strategy, a list of articles and press releases, pilot fact sheets, protocols and test plans, and verification statements and reports; and a "Calendar of Events" page, which provides a schedule of upcoming testing events, presentations, and conferences. The ETV exhibit is displayed at many of these conferences and booth visitors can obtain fact sheets, brochures, and ETV publications describing the program and its pilots.

In December 1998, ETV initiated the ETVoice listserv to inform subscribers about the availability of new information on environmental technology testing procedures, upcoming testing opportunities, the performance of individual ETV-verified technologies, verification meeting events, and general news related to the ETV Program. Subscribe to ETVoice on the Internet at <http://www.epa.gov/etv/membersh.htm>.

Visit the ETV Web Site and Subscribe to the ETVoice Listserv

ETV



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<http://www.epa.gov/etv>

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Environmental Technology Verification Program

What is ETV?

Throughout its history, the U.S. Environmental Protection Agency (EPA) has evaluated technologies to determine their effectiveness in monitoring, preventing, controlling, and cleaning up pollution. Since the early 1990s, however, numerous government and private groups have determined that the lack of an organized and ongoing program to produce independent, credible performance data is a major impediment to the development and use of innovative environmental technology. Such data are needed by technology buyers and permittees, both in the United States and abroad, to make informed technology decisions. To overcome this impediment, the President's environmental technology strategy, Bridge to a Sustainable Future, and the Vice President's National Performance Review contain initiatives for an EPA program to accelerate the development of environmental technology through objective verification and reporting of technology performance. In October 1995, the Environmental Technology Verification (ETV) Program was established by EPA to address this need. ETV was created to accelerate the development and commercialization of improved environmental technologies through third-party verification and reporting of performance.

What is the Goal of ETV?

The goal of ETV is to verify the performance characteristics of commercial-ready environmental technologies through the evaluation of objective and quality-assured data so that potential purchasers and permittees are provided with an independent and credible assessment of the technology that they are buying or permitting.

How Does ETV Operate?

In March 1997, the EPA Administrator sent the Agency's Environmental Technology Verification Strategy to the Vice President and Congress. This strategy delineates the goals for the ETV Program, the selection criteria for ETV pilots, and the operating principles for implementation of the program. The following operating principles have defined the basic ETV Program structure and remain fundamental to its operation:

Pilot Phase—ETV begins with a 5-year pilot phase (1995-2000) to test a wide variety of partner and procedural alternatives as well as the true market demand for, and public response to, such a program. Throughout the pilot period, EPA and its partners will operate in a flexible and creative manner in order to identify new and efficient methods to verify environmental technologies, while maintaining the highest credibility standards. The operational objective will be to actively look for ways to optimize procedures without compromising quality. During this initial phase EPA will operate 12 pilots, phased in over a 3-year period, that focus on each of the major environmental media and various categories

ETV Pilot Partnerships

✓ Drinking Water Systems

✓ Site Characterization and Monitoring Technologies

✓ Pollution Prevention (P2), Recycling & Waste Treatment Systems

✓ P2 Innovative Coatings & Coating Equipment

✓ Indoor Air Products

✓ Advanced Monitoring Systems

✓ Air Pollution Control Technology

✓ Greenhouse Gas Technology

✓ Wet Weather Flow Technologies

✓ Source Water Protection Technologies

✓ P2 Metal Finishing Technologies

✓ EvTEC—Independent Entity



of environmental technologies. The costs and effectiveness of these pilots will be closely monitored during this period and, in 2001, EPA will make recommendations to Congress on whether, and in what form, such a verification program should continue.

Partnerships and Stakeholders—The ETV Program is carried out through a wide variety of partnerships with public and private testing and evaluation organizations. These “verification partners” work with EPA technology experts to create efficient and fully quality-assured procedures that facilitate highly credible performance verification of innovative technologies. States, federal laboratories, associations, and private sector testing and standards organizations have joined EPA in these partnerships. The efforts of each of EPA’s verification partners are being guided by the expertise of a Stakeholder Group. These groups consist of representatives of all verification customer groups for the particular technology sector—buyers and users of technology, developers and vendors, state and federal regulatory personnel, and consulting engineers. More than 300 individuals are now active in ETV Stakeholder Groups. Their primary functions are to assist their pilots in developing policies and procedures, prioritizing types of technologies to be verified, reviewing important documents, and designing and implementing outreach activities to the verification customer groups that they represent.

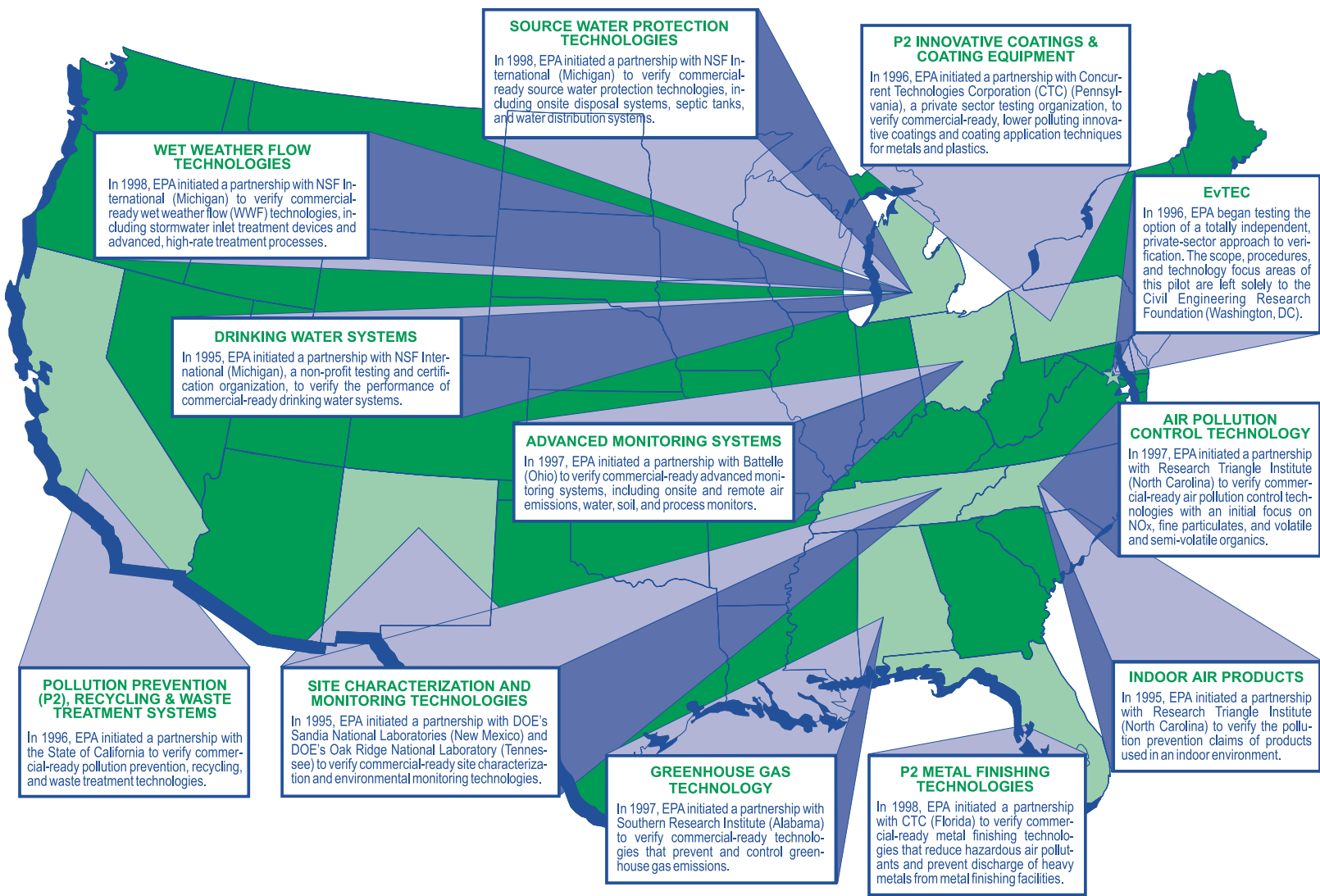
Performance Evaluation Objectives—ETV is a voluntary program that seeks to make objective performance information available to all of the actors in the environmental marketplace for their consideration and to assist them in making informed technology decisions. ETV does not rank technologies or compare their performance, label or list technologies as acceptable or unacceptable, or seek to determine “best available technology” or approve or disapprove technologies. The program focuses only on commercial-ready technologies; it does not evaluate technologies at the bench- or pilot-scale and does not conduct or support research.

Pilot Evaluation and Program Decisions—EPA will collect data on operational parameters (e.g., number of participants, cost and time required to perform tests and report results), and outcomes (e.g., use of data by the states

and public, sales reported by vendors) to evaluate the ETV Program. EPA will use this information to make long-term recommendations to Congress regarding the future of the program.

Outreach and Information Diffusion—EPA recognizes that substantive and substantial interface with technology permitters (primarily at the state level) will be necessary to facilitate the rapid implementation of innovative approaches and technologies. To date, ETV outreach activities have focused on: involving state representatives in Stakeholder Groups that are designing the protocols and procedures for each pilot, developing a brochure about the ETV Program as well as fact sheets on the program and each of the 12 pilots, and developing and maintaining the ETV Web Site and ETVoice Listserv. EPA has recently developed an outreach strategy that includes training for state permitters, a national conference, and a number of other outreach efforts.

ETV Partnerships



What Are the Benefits of the ETV Program?

- ◆ Provides objective, credible performance data to buyers.
- ◆ Facilitates technology acceptance and permitting at the state/local level.
- ◆ Reduces risk for financial investors.
- ◆ Levels the playing field among competitors through standardized tests and objective reporting.
- ◆ Facilitates export of environmental products.

What Criteria Were Used to Select the ETV Pilots?

The selection of verification pilots is critical to the ultimate success of the ETV Program. The following criteria were used to select ETV verification pilots:

- ◆ Address important environmental needs.
- ◆ Present substantial business opportunities for the private sector.
- ◆ Involve multiple developers and vendors.
- ◆ Address the full range of environmental media.
- ◆ Test a variety of verification organization types.

How Do the ETV Pilots Operate?

Each ETV pilot generally will evolve through two periods of development—an organizational phase and an operational phase (see figure on back page). During the Organizational Phase, EPA selects one or more partner organizations to oversee and conduct verification activities. This usually occurs through an open solicitation process followed by rigorous peer review of all proposals. EPA and its selected partner(s) then identify approximately 30 appropriate participants for the Stakeholder Group that will guide the progress of the program. Actual verification activities, initiated during the Operational Phase, are announced in the Commerce Business Daily and other relevant publications to encourage maximum participation by developers. Test plans are prepared in conjunction with the developers and the tests are conducted by independent third parties. Appropriate quality assurance procedures are incorporated into all aspects of the project and reports are subjected to peer review. Verification statements of 3 to 5 pages, based on the performance data in the reports, are signed by EPA and the verification organization, and then published and posted on the ETV Web Site. Additional outreach activities, as defined by the Stakeholder Group, are conducted.

ETV Definitions

ETV Does Evaluate and Verify

ver·i·fy \ver-ə-ˈfī\ vb : to establish or prove the truth of the performance of a technology under specific, predetermined criteria or protocols and adequate data quality assurance procedures **syn** confirm, corroborate, substantiate, validate

eval·u·ate \i-ˈval-yə-,wāf\ vb : to carefully examine and judge the efficacy of a technology; to submit technologies for testing under conditions of observation and analysis **syn** measure, estimate, classify, test

ETV Does Not Certify

cer·ti·fy \sərt-ə-ˈfī\ vb : to guarantee a technology as meeting a standard or performance criteria into the future **syn** ensure, warrant, guarantee